

DEVAL L. PATRICK GOVERNOR

TIMOTHY P. MURRAY LIEUTENANT GOVERNOR

JUDYANN BIGBY, MD SECRETARY

JOHN AUERBACH COMMISSIONER

The Commonwealth of Massachusetts

Executive Office of Health and Human Services
Department of Public Health
William A. Hinton State Laboratory Institute
305 South Street, Jamaica Plain, MA 02130

01/19/2012

Debra Payton Assistant District Attorney, Norfolk County

Dear ADA Payton,

Enclosed is the information you requested in regards to Commonwealth vs. Included are copies of the following:

- 1. Curriculum Vitae for Annie Dookhan and Peter Piro.
- 2. Drug Analysis Laboratory Receipt.
- 3. Control Cards with analytical results for samples #
- 4. Analysis sheets with custodial chemist's hand notations and test results.
- 5. GC/Mass Spectral analytical data for samples #

Annie Dookhan was the custodial chemist and performed the preliminary testing and net weight for this sample. Peter Piro analyzed the GC/MS data for this sample.

If you have any questions about these materials, please call me at the number below.

Sincerely

Annie Dookhan

Chemist

Drug Analysis Lab

Jamaica Plain, MA. 02130

(617) 983-6622

Curriculum Vitae

Annie Khan (Dookhan)

Education:

University of Massachusetts, Boston, Ma, Master of Science in Chemistry

University of Massachusetts, Boston, Ma, Bachelor of Science

Major: Biochemistry Minor: Economics

Experience:

2003 - present

Chemist I, II, Massachusetts Department of Public Health, Drug Analysis Laboratory

- *Responsible for the identification of illicit drugs to determine violations of harmful and narcotic drug laws.
- *Writing of the Standard Operating Procedures (SOPs) and Protocols.
- *Responsible for the Quality Control and Quality Assurance of analytical instruments, reagents and controls/standards.
- *Maintenance and repairs of analytical instruments.
- *Trained in the use of complex analytical instrumentation, microscopes and balances for the purpose of drug analysis.
- *Qualified as an expert witness in Massachusetts Courts and U.S. District Court.
- *Completed six-week training course conducted by senior staff within the Department of Public Health, Drug Analysis Laboratory.
- *Appointed Assistant Analyst by Assistant Commissioner of Public Health.
- *Notary Public.

2001 - 2003

QC Analyst I, II, UMMS-Massachusetts Biologic Laboratory, QC Material Control

- *Completed proficiency training conducted by a member of the staff within the MBL Quality Control and Quality Assurance Department for the Food and Drug Administration.
- *Method Development for creating new techniques for the QC Dept. and FDA.
- *Writing, revising and reviewing the Standard Operating Procedures (SOPs).
- *Trained and supervised new chemists and interns for the department.
- *Routine QC testing of products for the FDA.
- *Trained in the use of complex analytical instrumentation, and balances for the purpose of QC analysis for product and validation projects.
- *Calibration, preventive maintenance, QC and QA of analytical instrumentation.
- *Complete testing of chemicals for Vendor Validation Project for the FDA.
- *Compendial testing and interpretation of the USP, ACS, FCC, AOAC, Merck Index, PDR, etc.

Additional Courses:

Department of Justice - Forensics Professionals

Introduction to Forensic Drug Chemistry

Chemical Spot Test and Mechanism for Illicit Drugs

Forensic Mass Spectrometry

Forensic Science 101: An Introduction

Fundamentals of Forensic Questioned Documents

Perspectives in Expert Testimony

Evidence Analysis

Ethics in Forensic Science

Transition to Leadership

Fundamentals of Forensic Toxicology

Additional Trainings:

Good Laboratory Practice/Good Manufacturing Practice (GLP/GMP) training with Massachusetts Biologic Laboratory.

Quality Control/Quality Assurance (QC/QA) training according to FDA Codes and Regulations.

Gas Chromatography (GC) and Gas Chromatography/Mass Spectrometry (GC/MS) trainings with Agilent Technologies and Restek.

High Power Liquid Chromatography (HPLC) and HPLC/MS/MS trainings with Waters Cooperation.

Fourier Transform Infrared Spectroscopy (FTIR) training with Spectros and Spectum One.

Ultraviolet-Visible Spectroscopy (UV-Vis) training with Agilent Technologies and Beckman.

Total Organic Carbon Analyzer (TOC) training with MBL and Sievers.

Associations:

American Chemical Society (ACS)

Northeastern Association of Forensics Science (NEAFS)

Curriculum Vitae

Peter Piro

EDUCATION

Boston University
B.A. in Chemistry and Minor in Biology, 1989
HONORS
Magna Cum Laude, 3.6 GPA

Graduated with Distinction in Chemistry
Valedictorian of the Chemistry Department

EXPERIENCE

Department of Public Health/State Laboratory Institute

Laboratory Supervisor I/Chemist III, II, II/ Assistant Analyst December 1991-Present Supervise the operation and maintenance of the Gas Chromatography/Mass Spectrometry Laboratory. Train staff and coordinate schedules. Analyze controlled substances for State and Federal law enforcement agencies. Develop, oversee, and make improvements to the GC/MS laboratory's quality assurance/quality control (QA/QC) program. Serve as the Technical Supervisor of the Drug Analysis Laboratory. Responsible for planning and implementing Quality Improvement (QI) projects. Make recommendations for protocols and procedures by developing methods so work can be performed in an accurate and efficient manner. Purchase supplies for the laboratory. Qualified as an expert witness in Massachusetts courts and in U.S. District Court.

Massachusetts Health Research Institute

Laboratory Technician September 1990-December 1991 Researched the seasonal and special occurrences of DSP and PSP in shellfish samples harvested from coastal waters and Georges Bank using cELISA and bioassays.

TRAINING AND ORGANIZATIONS

- * Completed a six-week training course by senior staff within the Department of Public Health Drug Analysis laboratory.
- * Appointed Assistant Analyst by the Assistant Commissioner of Public Health in February 1991, Notary Public since 1993.
- * Elected as a Regular Member to the Northeastern Association of Forensic Chemists on October 27th 1995 and a member of the Massachusetts Organization of State Engineers and Scientists.
- * Completed training in Mass Spectrometry given by the Food and Drug Administration/Forensic Chemistry Center on November 2002.* Completed Mass Spectrometry Troubleshooting and Maintenance, Agilent Technologies,2002* Completed Restek GC/MS Training, 2011*Completed DEA Forensic Chemist Training, Special Testing and Research Laboratory, 2011.

PLEASE PRINT CLEARLY OR TYPE ALL INFORMATION

The Commonwealth of Massachusetts
Executive Office of Health and Human Services
Department of Public Health State Laboratory Institute

Boston Drug Laboratory Tel (617) 983-6622 Fax (617) 983-6625

Amherst Drug Laboratory Tel (413) 545-2601 Fax (413) 545-2608

Boston Hours

8:00 - 11:00

2:00 - 4:00

DRUG RECEIPT

Amherst Hours

9:00-12:001:00 - 3:00

Name and Rank of Submitting Officer: No.:					
Defendant(s) Name (last, first, initial):					
To be completed by Submitter Description of Items Submitted	To be completed Gross Weight	by Lab Personnel Lab Number			
Z plb's of Miered creck a	exaine 2.9%				
2 plb's of Alleged crack o	ocate 2,4%				
· V	9				
-					
	P				
	Date:	4-13-11			

DATE ANALYZED:

CITY: QUINCY POLICE DEPT.

OFFICER: DETECTIVE WILLIAM WARD

DEF:

AMOUNT:

SUBST: SUB

No. CONT:

2 CONT: PB

DATE REC'D: Ø4/13/2011 No. ANALYZED: \

GROSS WT:

NET WT: 6.34 2.910

CZAd: STS3T#

6-21-11

PBELIM: COCCURE @ FINDINGS: COCA, Ne

DATE ANALYZED:

CITY: QUINCY POLICE DEPT.

OFFICER: DETECTIVE WILLIAM WARD

DEF:

AMOUNT:

SUBST: SUB

No. CONT:

1 CONT: PB

DATE REC'D: 04/13/2011 NO. ANALYZED:

GROSS WT:

2.470 NET WT: 0.28

#TESTS: 685

· 2P.P.10

6-21-11

PRELIM: COCONE (FINDINGS:

Folk_OIG_PRR_041057

DRUG POWDER ANALYSIS FORM

SAMPLE #	AGENCY Qu	NU ANAL	.YST <u> </u>	
No. of samples tested:	-	Evidence	Wt	pananananananananananananananananananan
PHYSICAL DESCRIPTION:		Gross Wt(2): 0.8124	\ S_
of white d	nesly schools	Gross Wt (1): 0.4010	>
\7	562		. Wt:	
Similar		Net	Wt: 0.349	<u> </u>
PRELIMINARY TESTS Spot Tests Cobalt		<u>Microcrystallin</u> Gold		
Thiocyanate (-) + Marquis -		TLTA (-) +	· · ·	
Froehde's		OTHER TES	<u>TS</u>	
PRELIMINARY TEST RESULTS	A ₂	GC/MS CONFIRMAT	ORY TEST	
RESULTS COCCUP		RESULTS COCA	<u>ui</u>	
DATE 6-16-11		MS OPERATOR 730		
		DATE 6-21-	-) (

DRUG POWDER ANALYSIS FORM

SAMPLE#	_ AGENCYG	Duncy ANALYST ASO
No. of samples tested:		Evidence Wt.
PHYSICAL DESCRIPTION:		Gross Wt (): 0.4334
Off white	Council 24/2	Gross Wt ():
	19 18	Pkg. Wt:
		Net Wt: 0.2896
PRELIMINARY TESTS Spot Tests		Microcrystalline Tests
Cobalt Thiocyanate (-) +	· . ·	Gold Chloride +
Marquis		TLTA (-)
Froehde's		OTHER TESTS
Mecke's	 +	* .
· · · · · · · · · · · · · · · · · · ·		
PRELIMINARY TEST RESU	LTS	GC/MS CONFIRMATORY TEST
RESULTS COCOL	e	RESULTS cocane
DATE 6-16-11		MS OPERATOR ?30
		DATE 6-21-4

1-18-12

Information from Data File:

File Name : C:\msdchem\1\data\SYSTEM6\2011\06_17_11\792362.D

Operator : NEM

Date Acquired : 18 Jun 2011 5:59

Sample Name

: BLANK

Submitted by

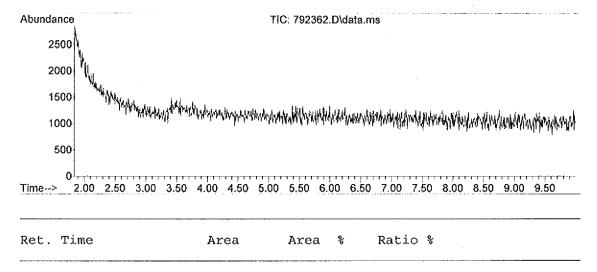
DIM

Vial Number :

2

AcquisitionMeth: DRUGS.M

Integrator : RTE



NO INTEGRATED PEAKS

: C:\msdchem\1\data\SYSTEM6\2011\06_17_11\792363.D File Name

Operator : NEM

Date Acquired : 18 Jun 2011

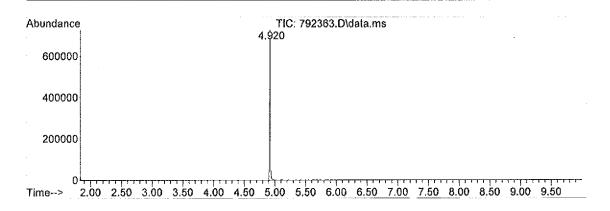
Sample Name : COCAINE STD

6:12

Submitted by

Vial Number : 63 AcquisitionMeth: DRUGS.M

Integrator : RTE



Ret. Time	Area	Area %	Ratio %
4.920	671167	100.00	100.00

: C:\msdchem\1\data\SYSTEM6\2011\06 17 11\792363.D File Name

6:12

Operator : NEM

Date Acquired : 18 Jun 2011 : COCAINE STD

Sample Name

Submitted by

Vial Number 63

AcquisitionMeth: DRUGS.M Integrator RTE

Search Libraries:

RT

4.92

PK#

1

C:\Database\SLI.L

C:\Database\NIST08.L

C:\Database\PMW TOX2.L

Minimum Quality: 80

Minimum Quality: 80

COCAINE

Library/ID

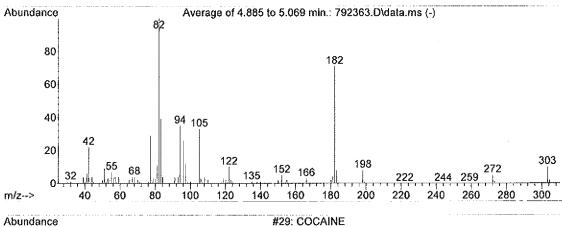
C:\Database\SLI.L

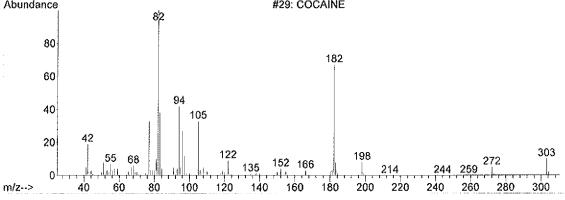
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CAS#

99

Qual





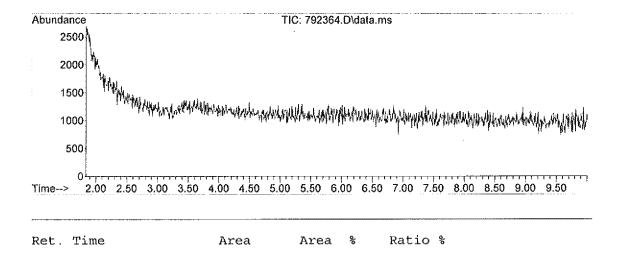
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Operator : NEM

Date Acquired : 18 Jun 2011 6:25

Sample Name : BLANK Submitted by ASD Vial Number : 2 AcquisitionMeth: DRUGS.M

Integrator : RTE



NO INTEGRATED PEAKS

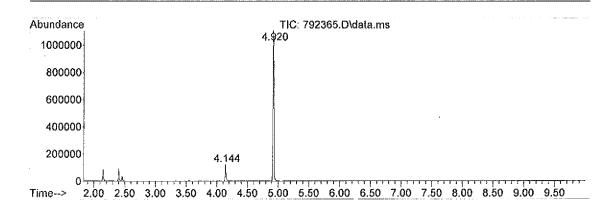
File Name : C:\msdchem\1\data\SYSTEM6\2011\06_17_11\792365.D

Operator : NEM

Date Acquired : 18 Jun 2011 6:38

Sample Name :

Submitted by : ASD
Vial Number : 65
AcquisitionMeth: DRUGS.M
Integrator : RTE



Ret. Time	Area	Area %	Ratio %
4.144	123633	9.12	10.04
4.920	1231648	90.88	

File Name : C:\msdchem\1\data\SYSTEM6\2011\06_17_11\792365.D

Operator : NEM

Date Acquired 18 Jun 2011 6:38

Sample Name

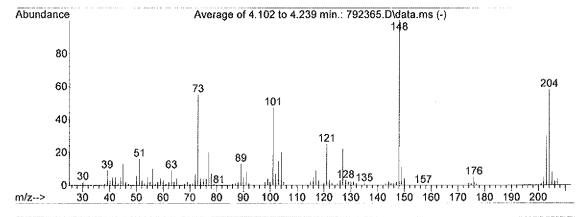
Submitted by ASD Vial Number 65 AcquisitionMeth: DRUGS.M Integrator : RTE

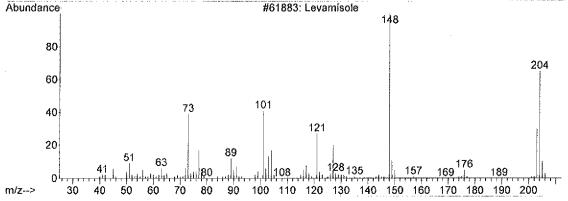
Search Libraries: C:\Database\SLI.L Minimum Quality: 80 Minimum Quality: 80

C:\Database\NIST08.L

C:\Database\PMW_TOX2.L

PK#	RT	Library/ID		CAS#	Qual
1	4.14	C:\Database\NIST08.L			* -
		Levamisole		006649-23-6	98
		Levamisole		006649-23-6	98
		<pre>Imidazo[2,1-b]thiazole,</pre>	2,3,5,6-tet	014769-73-4	98





File Name : C:\msdchem\1\data\SYSTEM6\2011\06_17_11\792365.D

Operator : NEM

Date Acquired 18 Jun 2011 6:38

Sample Name Submitted by

ASD 65

Vial Number AcquisitionMeth: DRUGS.M Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80

C:\Database\NIST08.L

Minimum Quality: 80

C:\Database\PMW TOX2.L

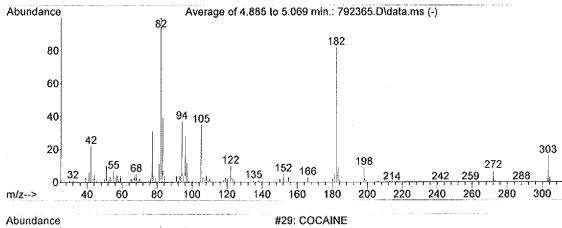
PK# RTLibrary/ID CAS#

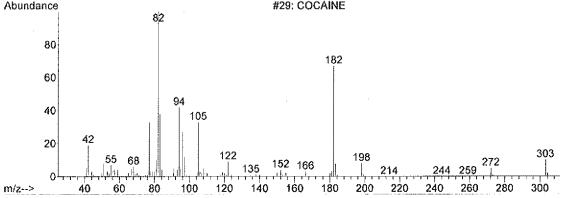
Qual

C:\Database\SLI.L 2 4.92 COCAINE

000050-36-2

99



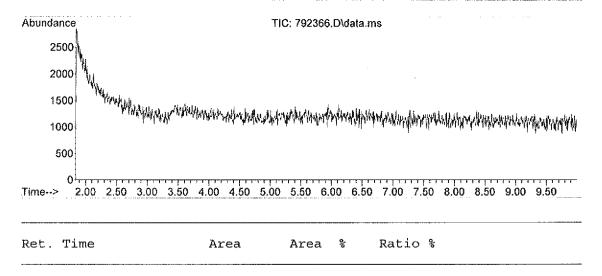


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Operator : NEM

Date Acquired : 18 Jun 2011 6:50

Sample Name : BLANK
Submitted by : ASD
Vial Number : 2
AcquisitionMeth: DRUGS.M
Integrator : RTE



NO INTEGRATED PEAKS

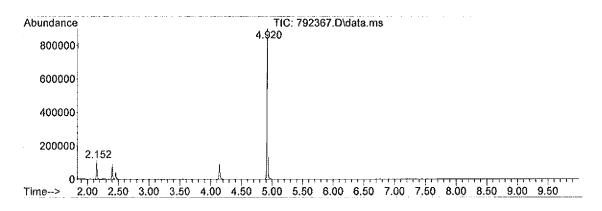
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Operator : NEM

Date Acquired : 18 Jun 2011 7:03

Sample Name :

Submitted by : ASD
Vial Number : 67
AcquisitionMeth: DRUGS.M
Integrator : RTE



irea <i>l</i>	area &	Ratio %
 	10.31 89.69	

File Name : C:\msdchem\1\data\SYSTEM6\2011\06 17 11\792367.D

Operator : NEM

Date Acquired : 18 Jun 2011 7:03

Sample Name

Submitted by : ASD
Vial Number : 67
AcquisitionMeth: DRUGS.M
Integrator : RTE

Search Libraries: C:\Database\SLI.L

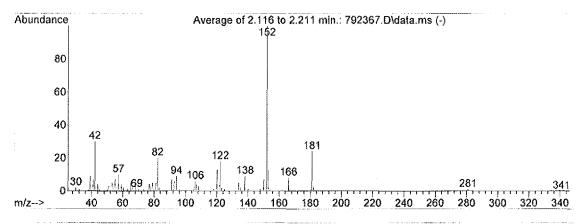
Minimum Quality: 80

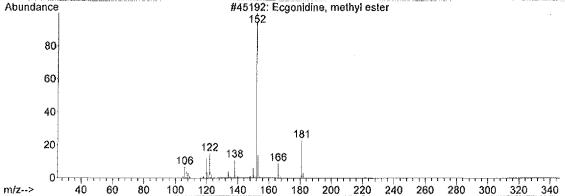
C:\Database\NIST08.L

Minimum Quality: 80

C:\Database\PMW_TOX2.L

]	PK#	RT	Library/ID	CAS#	Qual
	1.	2.15	C:\Database\NIST08.L		
			Ecgonidine, methyl ester	127379-24-2	98
			2-Carbomethoxy-8-methyl-8-azabicycl	043021-26-7	96
			2(1H)-Pyridinone, 4-hydroxy-6-methy	007135-82-2	47





File Name : C:\msdchem\1\data\SYSTEM6\2011\06_17_11\792367.D

Operator : NEM

Date Acquired : 18 Jun 2011 7:03

Sample Name

RT

PK#

ASD 67

Submitted by Vial Number AcquisitionMeth: DRUGS.M Integrator RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80 Minimum Quality: 80

C:\Database\NIST08.L

C:\Database\PMW TOX2.L

CAS# Qual

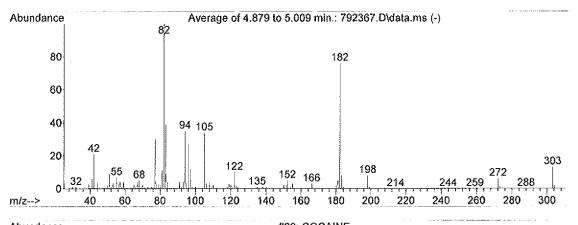
C:\Database\SLI.L 2 4.92

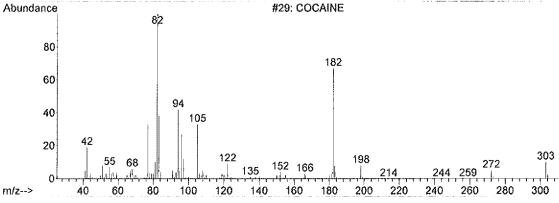
COCAINE

Library/ID

000050-36-2

99





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Operator : NEM

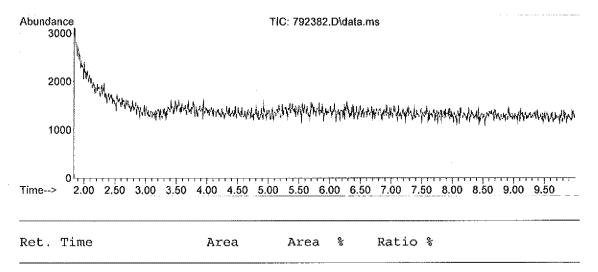
Date Acquired : 18 Jun 2011 10:16

Sample Name : BLANK

Submitted by :

Vial Number : 2 AcquisitionMeth: DRUGS.M

Integrator : RTE



NO INTEGRATED PEAKS

Area Percent / Library Search Report

Information from Data File:

File Name : C:\msdchem\1\data\SYSTEM6\2011\06_17_11\792383.D

Operator : NEM

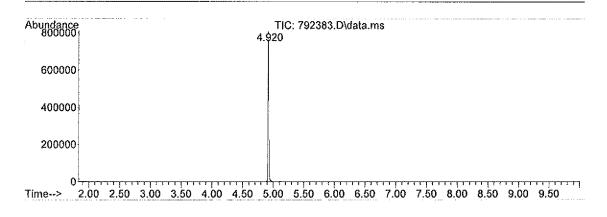
Date Acquired : 18 Jun 2011 10:28

Sample Name : COCAINE STD

Submitted by

Vial Number : 63 AcquisitionMeth: DRUGS.M

Integrator : RTE



Ret. Time	Area	Area %	Ratio %
4.920		100.00	

File Name : C:\msdchem\1\data\SYSTEM6\2011\06_17_11\792383.D

: NEM Operator

Date Acquired 18 Jun 2011 10:28

Sample Name

RT

COCAINE STD

Submitted by Vial Number

63

AcquisitionMeth: DRUGS.M Integrator

PK#

: RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80

C:\Database\NIST08.L

Minimum Quality: 80

C:\Database\PMW TOX2.L

CAS#

Qual

C:\Database\SLI.L 1 4.92

COCAINE

Library/ID

000050-36-2

99

303

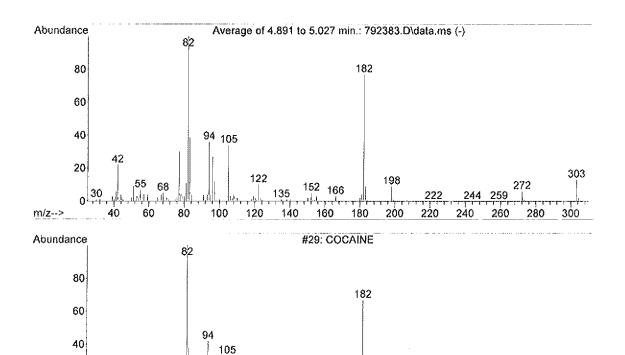
300

272

280

259

260



152 166

160

180

200

220

240

42

40

55 68

60

80

100

20

m/z-->

122

120

135

140